

XIX. *Revision of the genera and species of Malacoderm Coleoptera of the Japanese fauna.* By Rev. H. S. GORHAM, F.Z.S.

[Read September 5th, 1883.]

PART I.—LYCIDÆ, LAMPYRIDÆ.

PLATE XVII.

IN offering the descriptions of the many new species of beetles of the Malacoderm portion of Mr. Lewis' recent collection, I shall follow the example of other authors of descriptive papers submitted to this Society of prefacing them by a few remarks on the light they appear to throw on the distribution of animal life to this eastern limit of the globe. But I would first desire to say that we very much want a few guiding principles as to how the subject of distribution is to be approached, and to define at the outset whether we are referring to a supposed migration from one or more centres, or to, what is far oftener apparently intended, the development of the family or order within the district itself. To get a clear idea of this I think we may divide the genera and species of any family of sufficient importance into three categories:—

1. The generalised or undifferentiated type.
2. The ordinary type.
3. The specialised or much modified type.

Of these the first includes such genera as are found with little modification in far distant and dissimilar parts of the world, and I take to indicate an ancient settlement of the family wherever they occur. They are the unaltered representatives of the stock from which the rest have sprung.

The second embraces the larger number of both genera and species; it is by its alliances and apparent migrations that we shall be able to gain an approach to a solution of those difficult problems of distribution, by land- or by sea-currents or by flight through the air, which occupy so many minds at the present moment.

In the third we only see the result of high development under favourable conditions for its taking place. The few genera in this category speak of a settled and prosperous home long enjoyed. They are the autocthones of the country and occupy a precarious position, from which any slight disturbance may speedily remove them.

Or, in other words, the presence of genera of the first category speaks of ancient settlement; of the second of permanent occupation; of the third of duration under favourable conditions.

In my first category I do not include such abnormal genera as combine the characters of two or three families, and are not satisfactorily placed in either. These I eliminate, as being only placed in either family for the sake of convenience; they are, according to my view, the living representatives of a still older stock, and are limited in distribution, and are rare just because they represent a bygone and still more generalised type. I speak here only of such genera as clearly belong to existing families. Among the *Lycidæ* there is a well-known genus in Europe, *Homaligus*. It is what I would call an *undifferentiated family type*, and one new genus from Japan, *Pristolytus*, seems a parallel case. This insect, with the general appearance of one of the *Lycidæ*, has the trochanters applied to side of the base of the femora, as in the neighbouring families; the antennæ are close at their insertion, as in *Lycidæ* and *Lampyridæ*; the middle coxæ are very close, as in *Telephoridæ*.

Similar cases of rare abnormal genera, as we sometimes call them, will occur to every one. I repeat, that while these are to me instances of my principle more broadly applied, in treating of the family I refer here to what are often called dominant genera, as, for instance, *Bembidium*, with its outlying small genera, among the *Carabidæ*; while *Amphizoa*, suggested to me by Mr. H. W. Bates, is an instance of the generalised *family type*.

To illustrate my idea, the family with which I commence this paper will serve my purpose as well as any other, better than some, for some other families may be deficient in the first or in the third categories, although abundant in species, with but a moderate degree of development in any particular direction. In the *Lycidæ* one of the most remarkable developments is the inflation of the elytra in the males. It is not my purpose here

to enter upon an explanation or suggestion of the purpose or function of any of these developments, but merely to point out the degree in which these seem to have taken place in the Japanese fauna. The inflated form is almost restricted to Africa, but finds its counterpart in the New World; it is joined to the production of the head into a rostrum. This form is only represented by a single genus, *Lycostomus*, in the East, and in Japan by but one species. Another form, which seems to me much modified, and to be the one to which the eastern line of development tends, is *Metriorhynchus*; this reaches its maximum in Australia, but is represented by but one species in Japan, so far as Mr. Lewis' collections have yet shown; the rostrum is still present here, but not any degree of inflation of elytra; but in its place a remarkable modification of thoracic structure takes place, a tendency towards which may be traced through many eastern genera. It is very common throughout the Coleoptera, and, I believe, in other orders of insects, to find a central channel on the disk of the prothorax; its probable use is explained by the attachment for muscles afforded by the corresponding inward projection; this, therefore, is no peculiarity of the *Lycidæ*, but in fact it gives way to another form, *viz.*, a carina, there being hardly any genus of *Lycidæ* with a simple channel from front to base of the thorax. And the peculiarity of the family consists in this, that not only is the channel converted into a carina, but that various carinæ are set up in various directions, reaching a maximum in *Metriorhynchus*. The most simple form, and that in which we see this change taking place incipiently, is found in a genus *Plateros*, which in its broad sense is found in all parts of the world, at least where any considerable number of the family are found. The channel is present here only at the base of the thorax; in front a carina is formed. The head is not rostrate; the antennæ are of the simple serricorn type. The elytra have the simplest form of striation, and the nearest approach to true punctuation to be found in the family, not differing so very much from that of the allied families of *Elateridæ*, or from the prototypical forms of *Lampyridæ* or *Telephoridæ*. This I would regard then as a representative of the undifferentiated type, and it is represented in Mr. Lewis' collections by one or two species which do not depart in any great degree from the North American species of the same genus.

Of the middle category, Japan has hitherto furnished us with some four genera, two of which, *Eros* and *Platycis*, are well-known Palæartic and Nearctic forms; and the other two are Indo-Malay forms, which I should regard as *Eroid* genera, but less specialised, and nearer therefore to *Plateroid* forms than *Eros* is itself.

We have therefore in Japan a sort of picture or sample, as it were, of the whole *Lycidæ*. The number of species is small (only eighteen) if compared with those extending over a similar district of volcanic and forest-land, say in Tropical Central America, but fully equal to that of North America between similar latitudes, where some twenty-five occur over the whole of the United States, and large compared with that of Europe, from the whole of which only twelve species are known.

An attempt to summarise the facts here noticed leads one rather to negative conclusions, and such I think will be generally found to be the case. The Japanese does not appear to be a derived fauna, for the number of endemic forms is large both in proportion to the number of species and the size of the district explored. Extinction of species or of genera does not appear to have gone on so much as in the European side of the Palæartic region. We have several genera of my first category pointing to an early settlement of this family here; while one genus is so remarkable as to suggest that it, like the anomalous genus *Homaligus*, represents the ancient synthetic type from which both *Lycidæ* and *Telephoridæ* and other sections of the Malacodermata have sprung,—I mean a new genus which I characterise in the present paper, but of which the proper location is doubtful, viz., *Pristolycus*.

In short, there is nothing in the Japanese genera of this section of the Coleoptera to lead us to think any movement of the species has taken place. One or two genera, as *Lycostomus* and *Metriorhynchus*, are the offshoots or exponents of the Indo-Malay and the Austro-Malay types of development respectively, but on the whole the reverse seems the fact, viz., that the fauna of Japan is really endemic, and that its apparent relationship with the North American fauna will be explained by referring such genera as are found in common to the primitive types, which are universally distributed where not extinguished by local depauperation.

The following is a list of the species :—

LYCIDÆ.			
<i>Lycostomus modestus</i> , Kiesenw.		<i>Plateros purpurivestis</i> , n. s.	
<i>Macrolycus pectinifer</i> , Kiesenw.		„ <i>nothus</i> , Kiesenw.	
<i>Mesolycus</i> (n. g.), <i>puniceus</i> , n. s.		„ <i>lineatus</i> , n. s.	
<i>Metriorhynchus geometricus</i> , Kiesenw.		<i>Pristolycus</i> (n. g.), <i>sagulatus</i> , n. s.	
<i>Eros erythropterus</i> , n. s.			
„ <i>oculatus</i> , n. s.		LAMPYRIDÆ.	
„ <i>spinicoxis</i> , Kiesenw.		<i>Lucidina</i> (n. g.), <i>accensa</i> , n. s.	
„ <i>velatus</i> , n. s.		„ <i>biplagiata</i> , Mots.	
<i>Platyis nasutus</i> , Kiesenw.		<i>Lucidota</i> ? <i>discicollis</i> , Kiesenw.	
<i>Conderis orientis</i> , n. s.		„ <i>fumosa</i> , n. s.	
„ <i>pictus</i> , n. s.		<i>Luciola picticollis</i> , Kiesenw.	
<i>Lyponia quadricollis</i> , Kiesenw.		„ <i>vitticollis</i> , Kiesenw.	
„ <i>delicatulus</i> , Kiesenw.		„ <i>parvula</i> , Kiesenw.	
<i>Plateros coracinus</i> , Kiesenw.		„ <i>gorhami</i> , Rits.	

LYCIDÆ,

*Lycostomus modestus*.

*Lycus modestus*, Kiesenw., Berl. Ent. Zeits., 1874, p. 250, nec *Lycostomus modestus*, C. Waterh., Ill. of Typ. Col. B. M., 1879, p. 11, pl. 2, f. 10,

Nagasaki and Kashiwagi.

Not very close to any described species; there is affinity to such species as *L. debilis*, Waterh., but the dull brown elytra, with greyish-black thorax, amply distinguish it.

Mr. Lewis met with the sexes in union in June. The males are the larger specimens, with longer and slightly more serrate antennæ.

*Macrolycus pectinifer*. (Pl. XVII., figs. 1, 2).

*Celetes pectinifer*, Kiesenw., Berl. Ent. Zeits., 1874, p. 251.

*Cerceros pectinicornis*, Kraatz, Deuts. Ent. Zeits., 1879, p. 127, pl. ii., f. 2; Bourg., Bull. Soc. Ent. Fr., (6), i., p. xlvi.

*Lygisteropterus flabellata*, Mots., Schrenck, Reis., 1860, p. 114, pl. 7, f. 29. ?

Niger, elytris purpureis, sericeo-velutinis tenuiter quadricostatis, costa tertia obsoleta; prothorace antice carinato, postice carina perbrevis, medio fossulato. Long. ♂ 9—13 mm., ♀ 9—20 mm.

Mas. Antennis articulis 3—10 longe flabellatis, segmento ventrali ultimo longe lanceolato, medio latiusculo.

Fœm. Antennis serratis, segmento ventrali triangulari, apice exciso, subbimucronato.

Nikko and Fukushima; Nara; Junsai.



Maxillary palpi with the apical joint wider at its base than the preceding one, somewhat conical. Antennæ of the male with joints 3—10 gradually shortening in length, with lengthened flabellate branches, the end joint being finally nearly as long as the branch of the joint before it; the whole antenna about two-thirds of the body's length. Thorax rounded in front, but a little sinuate, varying in different specimens; in the larger ones (which have at the same time more crimson-red elytra) it is usually but slightly contracted before the hind angles, which are produced and very acute; in smaller ones, and in some which have browner elytra, there is a decided contraction of the sides immediately before this acute hind angle; the middle of the basal margin rises to meet the very short basal carina, but is scarcely emarginate. The elytra are either crimson, with a rich purple hue, or brown. I cannot consider the latter a distinct species; they are very closely covered with silky adpressed hairs; no punctures or reticulation whatever is visible.

Although this species varies so much in size and in colour, the larger specimens being more richly coloured than the smaller ones, yet from an examination of both the male and female types from Mr. Lewis' first collection there is no doubt the fine series of specimens brought by him from Nikko, Fukushima, and other places in the main island, belong to the species described by Kiesenwetter, who, however, failed to observe the split claws. Identified by Bourgeois with *L. flabellata*, Mots., but I feel doubtful on this point.

#### MESOLYCUS, n. g.

Characteres plerumque ut in *Macrolycus*, sed antennæ maris simpliciter serratæ, prothoracis latera antice convergentia, angulis posticis acutis haud valde productis; disco antice carinato. Ungues fissi, at maribus intermediis ungue anteriori tantum fisso. Type, *Mesolycus puniceus*.

This genus is remarkable, as being a second genus of *Lycidæ* with the claws split, or rather armed with a spine near their points, *Macrolycus* having been the only genus in which this kind of structure (which is frequent in the *Lampyridæ* and *Telephoridæ*) has yet been noticed.

In the present genus not only is the only species I have yet seen but of medium size, but what is very

interesting is that the males differ from the females in having the intermediate tarsi with only the anterior claw thus split. This is analogous to what occurs in the genus *Photuris*, and might not of itself be considered of generic value; the antennæ, however, differ as much from those of *Macrolycus* as in other genera founded by Mr. Waterhouse on that character.

*Mesolycus puniceus*, n. s. (Pl. XVII., figs. 3—3 b).

Niger, prothorace pube ferrugineo brevi parce vestito, elytris puniceis dense sed breviter pubescentibus, obsolete et indistincte punctatis; sutura, margine et lineis tribus elevatis, interiore obsoletiori, ante apicem abbreviata. Long. 8—10 mm., ♂. ♀.

Mas. Antennis quam feminæ, paullo longioribus, segmento sexto late et profunde exciso.

Nara; Junsai; Nikko.

Head with a short blunt rostrum; apical joint of the maxillary palpi very little widened, but subtruncate; 1st and 2nd joints of the antennæ pale on the inner side, their length about two-thirds of the body's length in the male. Thorax longer than wide, hardly differing in the sexes; the carina extending half the length of the disk, and towards the base ending in a flat elevation; the base widely, not deeply, transversely impressed. The head is a little more exposed in the male, owing to the thorax being a little smaller in that sex. The elytra are very similar in colour and structure to those of *M. purpureus*, but are deeper and more obscure in tint. They are nearly parallel in the male; in the female they widen a little after the middle; the suture is faintly sinuous, dehiscent after one-third, and narrowly black.

A considerable series of specimens, and in two instances the sexes united, were found by Mr. Lewis.

*Metriorhynchus geometricus*.

*Eros geometricus*, Kiesenw., Berl. Ent. Zeits., 1874, p. 256.

*Cænia Bourgeoisi*, Harold, Stet. Ent. Zeit., xl., p. 333, 1879, ♀.

*Metriorhynchus* id., Bourg., Bull. Soc. Ent. Fr., (5), x., p. 149, ♂.

Kashiwagi; Nara; Fukushima; Junsai.

Two specimens (males) agree with the type of this species; these are entirely black, 8 mm. in length; the thorax with the usual seven areolets, the antennæ pectinate, but with these a considerable series of larger specimens appear to be conspecific, which have the elytra red-brown at the base for nearly half their length, owing to the scales with which their costæ and all the raised parts are thickly clothed being of that colour.

This insect agrees very nearly in colour with several *Lycidæ* from Borneo, Sumatra, and the adjacent islands, of which an account will be found under *M. infuscatus*, in 'Notes from the Leyden Museum,' vol. iv., p. 96, 1882. The rufous scales are no doubt very easily removed by friction or wet, which was probably the case with the specimens from which it was described.

#### *Eros*, Newman.

The type of *Eros* is *L. coccineus*, L., *aurora*, Herbst, and of English writers. The thorax has five areolets; the antennæ are simple, or only slightly serrate, much longer in the male than in the female. The elytra have the alternate four costæ more raised than the lines which separate the double rows of cells between them, of which there are thus ten between the suture and the margin. This definition will exclude such species as *D. affinis*, Payk., and *L. minutus*, F., for which the genera *Pyropterus*, Mulsant, and *Platycis*, Thompson, are adopted by all students of the *Lycidæ* now. But one of the species described by Kiesenwetter as *Eros* can be referred to that genus; they will be found here under the genera to which, in the present state of the systematic arrangement of this family, they pertain. Two species, *Eros granicollis* and *E. atrorufus*, Kiesenw., Deuts. Ent. Zeits., 1879, p. 305, I cannot refer to their proper genera, or identify with any of Mr. Lewis' species. No size is given, but they are, I suspect, *Platerotes*. Mr. Lewis' last journey has proved, however, that true *Eros* are in Japan.

#### *Eros erythropterus*. (Pl. XVII., fig. 7).

Niger, prothorace elytrisque læte coccineo-rufis illo disco subinfuscato. Long. 7—9 mm.

Mas? Antennis corporis fere longitudine, fere simplicibus, articulo tertio quam secundus paullo longiori.

Oyayama, flying round an old tree in April, 1881.



This elegant species is so near *E. coccineus*, L., that it will suffice to point out the difference. It is of course much smaller than average specimens of that insect. The antennæ are longer and thinner, less compressed, and with the 3rd joint smaller than in the males of *E. coccineus*. The thorax has in its centre a wide lozenge-shaped area; in *E. coccineus* this area is joined to the base by a short carina; here its apex is on the base.

*Eros oculatus*.

Niger, prothorace infuscato, margine toto tenuiter rufo, elytris rubricatis. Long. 7—8 mm., ♂, ♀.

Mas. Antennis quam corpus paullo brevioribus, oculis subglobosis, prominentibus.

Femina. Antennis brevioribus, oculis haud prominentibus.

Hakone and Miyanoshta.

Closely allied to the last species, smaller, with more prominent eyes, and the whole disk of the thorax pitchy black, or at least infuscate; in addition to these distinctions the thorax is proportionally smaller, the ridges separating the areolets are not so much raised, and the transverse one dividing the two front ones from the two posterior is not carried so far back towards the hind angles. Of the elytra the intercostal spaces are narrower, and the double row of square meshes not so even or so distinct.

The single female specimen is smaller than the two males met with by Mr. Lewis; this is no doubt merely accidental.

*Eros spinicoxis*.

*Eros spinicoxis*, Kiesenw., Berl. Ent. Zeits., 1874, p. 254.

Konose; Nara; Nikko; Fukushima.

When this species is in fine condition the elytra appear brownish red from the fine pubescence with which they are covered; other specimens are quite black. I have carefully examined the female type specimen, as well as several others identical, as I think, with it, of both sexes, and I cannot discover the coxal spines mentioned by Kiesenwetter. The trochanters are triangular and dentiform, as is usual in this family; the coxæ appear to me to be quite simple. This cannot be considered a

typical *Eros*, having but three distinctly raised costæ; the 1st costa is often abbreviated beyond the middle, the 2nd and 3rd start almost together from the humerus, and the space between the 2nd and 3rd is wide at the base, with a short intervening line representing the 4th.

Two specimens, a male and a female, taken at the same time as others of this species at Fukushima, have the antennæ decidedly shorter, with more nearly quadrate joints, but I hesitate to consider them as specifically distinct at present.

*Eros velatus*, n. s.

Niger, thorace subnitido; elytris subopacis, interstitiis alternis et margine squamulis purpureis vestitis. Antennis vix serratis. Long. 10 mm., ♀.

Kobe, on Maiyason.

This *Eros* is very similarly coloured to several other *Lycidæ*, both from Japan and from the Malay district, in being black, with the interstices (at least for a great part of their length) covered with reddish velvety scales. It is, however, the first species of *Eros* which I have found so coloured, and the scales are brighter crimson than in any of the allied species, nor do they extend to the intervals or transverse ridges. The thorax has a distinct central diamond-shaped areolet. All the five areæ are uneven in their surfaces; the intervals of the raised interstices have distinct reticulate cells in a double series; the 2nd and 3rd of the raised interstices unite before the apex. It is a rather broad and flat species, and I think will be easily recognised; at present only a single female specimen has been found.

*Platycis nasutus*.

*Eros nasutus*, Kiesenw., Berl. Ent. Zeits., 1874, p. 255.

Nikko; Miyanoshita; Oyama; Oyu.

*Platycis* is one of the best of the modern divisions of *Eros*, Newm., adopted from Thomson, Skand. Col., vi., p. 162, by C. Waterhouse. Trans. Ent. Soc. Lond., 1878, p. 101, for *Eros (Lycus) minutus*, F. So far as I know no other species has yet been referred to it. The present insect entirely agrees with the generic characters presented by *P. minutus*. The areolets in neither, however, can be said to be well defined. The most striking

characteristic is that there are three nearly equal and squarish pits in front, while behind there are two lateral ones opening into a very short central groove. The excavated production of the head in front is very remarkable. *P. nasutus* differs from *P. minutus* in its more sordid yellow colour; in the thorax not being black but pitchy, with yellow ridges and margins; and in the coarser sculpture of the elytra, which are also not clothed with minute scales. The antennæ in *P. minutus* have the apex yellow; this is not the case here.

CONDERIS, *Waterhouse* [Ill. Typ. Col. B. M., p. 59.]

The genus *Conderis*, as proposed by Mr. Waterhouse for *Calopteron signicolle*, Kirsch., has the thorax with four areolets, and a central diamond-shaped groove, and the antennæ simply serrate, but with the apical joints diminishing in width, in the degree of serration, and obliquely truncate at their apices. To this type he has united a species from India, *C. major*, Waterh., and I have described a third, *C. miniatus*, from Sumatra ('Notes from the Leyden Museum,' iv., p. 98, 1882). The central channel, groove, or fossa increases in dimensions in some nearly-allied genera, which should, I think, all be placed in the subfamily *Erotides*, till it forms an open lozenge- or diamond-shaped areolet, whose angles reach the front and hind margins and sides, or nearly so (*Taphes*, *Pyropterus*). The two species now described are typical *Conderides*, having a small central pit, formed as it were by the divided carina on the disk of the thorax, and united laterally with the side margin by a transverse ridge, running a little back, and faintly sinuous.

*Conderis orientis*, n. s.

Ater, opacus, thoracis carinulis et marginibus parum nitidis, elytris striga humerali, sutura, margine, et costis pube purpureo micantibus, antennis maris corporis fere longitudine; feminae brevioribus. Long.  $7\frac{1}{2}$ —9 mm., ♂, ♀.

Var. Elytris nigris striga humerali tantum purpurea.

Nara; Fukushima; Oyama.

The rufous appearance of the margins, suture, shoulder-stripe, and costæ is owing to a velvety pile,

which is no doubt easily removed by wear or any friction. The antennæ of the male are more distinctly serrate from the 3rd to the 8th joints, and are fully one-quarter longer than those of the female. The latter is the smallest of three examples of this species found by Mr. Lewis, and, as the same difference in the antennæ is the case in the next species, it may be generally so in this genus.

*Conderis pictus*, n. s. (Pl. XVII., fig. 4).

Præcedentisimillimus, elytris striga humerali, plagaque subapicali læte carminea. Long. 8—9 mm., ♂, ♀.

Odaigahara, in Yamato, June 22nd, 1881.

The elytra in this species have an elongate and rather wide stripe, equal in length to about one-third of the elytra, of a beautiful crimson-red before the apex, leaving, however, the entire margin black. Although from the two examples (which are all Mr. Lewis secured) I cannot point out any structural or other difference than that of colour, I feel confident it will prove to be a distinct species. The larger specimen is a male.

*Lyponia quadricollis*. (Pl. XVII., figs. 5, 6).

*Celetes quadricollis*, Kiesenw., Berl. Ent. Zeits., 1874, p. 252.

*Eros militans*, Kiesenw., loc. cit., p. 253, ♀.

Nagasaki; Kobe; Miyanoshita; Subashiri.

*Celetes* was proposed by Newman for a North American species, *C. basalis*, Lec., which may be described as a *Calopteron*, with the antennæ pectinate in the male. The present insect, however, has nothing to do with that type, but is very closely allied to the species for which Mr. Waterhouse proposes *Lyponia* (*L. debilis*, Waterh., Types of Col., p. 25), and with which it should clearly be associated. The genus is allied to *Plateros* by its thoracic groove, and elytra with ten even rows of punctures, the alternate costæ being sometimes raised. It differs from it in the pectinate antennæ and more quadrate thorax.

*L. quadricollis* is readily distinguished by its bright red elytra and evenly punctured striæ; it varies from 8 to 12 mm. in length. It was rather commonly met with by Mr. Lewis.

*Eros militans*, Kiesenw., according to the type in Mr. Lewis' collection, is simply a rather faded female example of this species.

*Lyponia delicatulus.*

*Eros delicatulus*, Kiesenw., Berl. Ent. Zeits., 1874, p. 254<sup>1</sup>.

Nagasaki<sup>1</sup>; Yuyama; Oyama; Miyanoshita.

It is rather singular that Herr Kiesenwetter appears not to have noticed the close affinity between this insect and *L. quadricollis*. The thoracic sculpture is the same, and the most striking difference (apart from its smaller size and more delicate build) is that the 4th and 6th interstices are raised, the former running into the suture near the apex.

*Plateros coracinus.*

*Eros coracinus*, Kiesenw., Berl. Ent. Zeits., 1874, p. 257<sup>1</sup>.

Nagasaki<sup>1</sup>; Kobe; Yokohama; Nara; Nikko; Sawara; Ontaki.

Of this species Mr. Lewis brought home about a dozen specimens, half of which seem to be of a larger and half of a smaller form. The larger ones, which are of both sexes, have the alternate interstices a little more distinct; in the smaller ones they are almost evenly raised; these are also greyer black, but the difference is altogether too minute to be specific.

The males have the eyes more globose and prominent; the abdomen is clearly of nine segments, the 8th only appearing ventrally as lobes on each side of the 9th narrow segment; the 7th is not emarginate, but all the plates are pubescent at their margins.

There does not appear to be any very striking generic difference between these species and New World *Platerotes*; yet I think the Eastern Tropical and African forms might very conveniently be separated under the term *Planeteros* (cf. Gorh., Ann. del. Mus. Civ. di St. Nat. Genova., vol. xviii., 1883).



*Plateros purpurivestis*, n. s.

Niger, prothorace brevi, angulis posticis acutis, disco nitido haud canaliculato vel carinato, inæquali; elytris squamulis purpureis dense vestitis. Antennis serratis. Long. 6 mm.

Fukushima.

As there is but a single specimen of this it will be better to merely indicate it here than to give a longer description. The elytra, which appear of a rich brown hue from the scales which clothe them, will sufficiently distinguish it in its genus.

*Plateros ? nothus*.

*Eros nothus*, Kiesenw., Berl. Ent. Zeits., 1874, p. 258.

Otsu; Biwa Lake; Nara; Samegai; Kobè.

I should not like to make a genus for this insect without further acquaintance with the types of some other Eastern *Platerotes* and *Calochromi*, described by Mr. Waterhouse, but which, owing to the removal of the collections of the British Museum, I am unable to make at present. It combines certain characters of both genera, having a rude obsolete channel on the disk of the thorax, with a short oblique ridge starting from a little above the hind angles on each side of the thorax. The antennæ also are unlike those of *Plateros*, having a distinct bead-shaped second joint, and those following not compressed nor serrate, but pubescent; all these characters indicating a type but little developed, and highly synthetic.

Seven specimens were taken by Mr. Lewis in 1881.

*Plateros ? lineatus*, n. s.

Nigro-fuscus, prothorace brevi disco carinato et per carinulam transversam sinuatam in areolas quatuor diviso, elytris quadricostatis, intervallis serie duplici punctorum, costis (præsertim externis) et ad basin brunneis, squamosis. Long.  $6\frac{1}{2}$ —7 mm.

Kashiwagi.

This is again a form unknown to me, but for which I do not at present think it well to institute a genus. Of

two specimens taken by Mr. Lewis, one has rather longer antennæ than the other, and is no doubt the male; they are scarcely serrate in either specimen.

It bears a strong resemblance to *Eros velatus*, but the thorax is divided into four areolets, something as in *Conderis*. The elytra appear firm and rather flat, with the four costæ evenly raised, but the 1st and the 3rd terminate before the apex.

PRISTOLYCUS, n. g.

Caput oculis mediocribus, antennis quam corpus brevioribus, leviter serratis, 11-articulatis. Thorax transversus, antice angustatus, angulis posticis prominulis subacutis, marginibus parum reflexis, disco obsolete crebrius punctato, leviter et obsolete canaliculato. Scutellum integrum. Elytra haud reticulata, creberrime conflenter punctata, costis tribus ante apicem desinentibus. Pedes mediocres, tarsi quinque-articulati, articulo tertio obconico, quarto subtus longe lamellato.

*Pristolycus sagulatus*, n. s. (Pl. XVII., fig. 8).

Niger, subnitidus, prothoracis marginibus antice piceis, elytris roseo-miniatis, prope suturam infuscatis, margine, sutura et costis nigris, scutellum nigrum punctulatum. Long. 10 mm., ♂? ♀.

Junsai.

The very remarkable insect for which I propose this genus has the general appearance of being one of the *Lycidæ*. It presents, however, so many points in which the structure is divergent from the family that its position is doubtful. The antennæ are closely inserted on the front of the small head, which is sunk in the prothorax. The maxillary palpi have their apical joint cylindrical, and the labial are small, not enlarged at the apices. The middle coxæ are separated only by a narrow ridge of the mesosternum. The trochanters are small pieces closely applied to the bases of the femora. Of the abdomen I cannot speak precisely, the specimens having shrunk a good deal; they may all be females, and I can only detect six ventral segments; at all events the structure is not dissimilar to that of many female *Lampyridæ*. It is black, with no indication of being luminous. The prothorax has the hind angles turned

outwards, a character very unusual in the *Lampyridæ*, but common in the *Lycidæ*. Till we can ascertain the sexes it is hardly possible to say more about this insect.

## LAMPYRIDÆ.

## LUCIDINA, n. g.

*Lucidotæ* affinis; antennæ compressæ, maris leviter serratæ, feminae breviores simplices. Ungues (maris) anteriores basi valde uncinato-dentati, interiores subdentati.

*Lucidina accensa*, n. s. (Pl. XVII., figs. 9—9 c).

Nigerrima; prothorace roseo, fusco limbato, vitta mediana sat lata, ad basin transversim expansa nigra, abdominis segmentis tribus ventralibus apicalibus cum pygidiali roseo-diaphanis. Long. 13 mm., ♂, ♀.

Mas. Unguibus anterioribus basi, dente acuto curvato armatis.

Nara; Tokio.

Much larger than *L. biplagiata*, Mots. (*vulnerata*, Kies.), and the claws with a much more acute and longer tooth. The antennæ are wider, and the thorax more vividly coloured. Four specimens.

*Lucidina biplagiata*.

*Lucidina biplagiata*, Mots., Bull. Mosc., i., p. 167.

*Lucidota vulnerata*, Kiesenw., Berl. Ent. Zeits., xviii., 1874, p. 260.

*L. angusticollis*, Kiesenw., *l. c.*, p. 261.

Kobe; Hitoyoshi; Junsai; Nagasaki; Hiogo; Yokohama; Yuyama; Nara; in May and June.

Met with again, but not apparently in great numbers, by Mr. Lewis. The tooth on the claws of this species is much less conspicuous than in *L. accensa*. After examining the type of *L. angusticollis*, kindly lent me by Mr. Lewis, I can only come to the conclusion that it differs from other males of *L. biplagiata* through an extraordinary malformation of the pronotum.

*Lucidota* ? *discicollis*.

*Lucernula discicollis*, Kiesenw., *loc. cit.*, p. 258.

Nagasaki ; Kobe ; Kashiwagi ; Nara.

Neither this nor the following species are typical *Lucidotæ*, being more ovate, and having diaphanous patches on the thorax in front.

*Lucidota* ? *fumosa*, n. s.

Nigro-fumosa, opaca, prothorace antice angustato rotundato, areolis duabus translucidis.

Fukushima, and Tsukuba-yama.

Nearly of the same form and characters as *L. discicollis*, but the thorax narrows much more in front, and has no discal yellow patch.

About six specimens were met with.

[*Lucidota tabida*, Kiesenw., *loc. cit.*, p. 259.]

Yokohama.

I examined the type of this, and believe it is only an immature and discoloured specimen of *L. biplagiata*, and by no means fitted for a type of such a soft insect.

*Luciola picticollis*.

*Luciola picticollis*, Kiesenw., *loc. cit.*, p. 262 ; Gorb.,  
Trans. Ent. Soc. Lond., 1880, p. 102.

*L. cruciata*, Harold, Deuts. Ent. Zeits., 1877, p. 357  
(nec Mots.)

Hakodatè ; Junsai ; Samegai.

Most of the specimens are from the last-named place, taken in July.

*Luciola vitticollis*.

*Luciola vitticollis*, Kiesenw., *loc. cit.*, p. 261 ; Gorb.,  
Trans. Ent. Soc. Lond., 1880, p. 108.

Tokio ; Yuyama ; Hitoyoshi ; Nikko.

This is the larger species, according to Kiesenwetter's description, and is one of the finest in the genus. The thorax is sometimes without the vitta.

It occurred in May.

*Luciola parvula.*

*Luciola parvula*, Kiesenw., *loc. cit.*, p. 263.

This is a small species of the *L. indica* type, but with the red thorax partly infusate, and (with the head) coarsely punctate; the elytra are also strongly punctured and substriate.

There is only one specimen (a male) in Mr. Lewis' collection now; it is distinct from any other species I have examined.

*Luciola gorhami.*

*Luciola Gorhami*, Ritsema, Notes from the Leyden Museum, v., p. 4 [1882].

*L. affinis*, Gorham, Trans. Ent. Soc. Lond., 1880, p. 101 (nec Ritsema, Tijdschr. v. Ent., xviii. (1875), p. 129).

*L. præusta*, Kiesenw., *loc. cit.*, p. 263; Lewis, Cat. Col. Jap., p. 17, No. 1206 (nec. Eschscholtz, Entom. i. (1822), p. 57).

The differences between this species and what I regard as *L. vespertina*, Fab., have been pointed out by me in the place cited. I have seen no reason to alter my opinion as to the distinctness of either this or other forms of the *vespertina* group; but great confusion exists in the synonymy. I cannot yet tell what the type of *L. japonica*, Thunb., may prove to be, but the description (Fab., Mant. i. 162) does not point to this species: "*L. flava* segmento abdominis antepenultimo nigro. . . Tota flava, antennis, oculis, alis segmentoque abdominis antepenultimo nigris"; for the insect, of which there is a single specimen in Mr. Lewis' collection, is closely allied to *L. vespertina*, has the head black, as well as the apex of the elytra, and has the antepenultimate segment entirely yellow. Olivier (Ent. ii., No. 28, 19) expressly says, "La tête est d'un jaune fauve, avec la partie supérieure et les yeux noires." It must be remembered that all authors are but following Thunberg, who after all may have been describing a Cape of Good Hope insect. I propose therefore to omit *L. japonica* from the list at present.

[*Luciola lateralis*, Mots., Schrenk, Reis., 1860, p. 114; Lewis, Cat. Col. Jap., p. 17, No. 1208. Referred to Dauria, E. Siberia, by Motschulsky. I have not seen it from Japan.]



EXPLANATION OF PLATE XVII.

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- FIG. 1. *Macrolycus pectinifer*, male.  
2.       "               "               female.  
3. *Mesolycus puniceus*.  
3 a. Claws of hind leg of male.  
3 b. Claws of middle leg of female.  
4. *Conderis pictus*.  
5. *Lyponia quadricollis*, male.  
6.       "               "               female.  
7. *Eros erythropterus*.  
8. *Pristolycus sagulatus*.  
9. *Lucidina accensa*.  
9 a, 9 b. Claws of ditto, male, showing the outer and inner  
          claws, middle leg.  
9 c. Terminal ventral segments of ditto, male.
- The details of the claws are magnified about 60 diameters.